

### 3.19 SOCIOECONOMICS

This section discusses regional employment and revenue associated with Project-related expenditures, agricultural resources, and recreational activities. Demographics (income and racial composition) are discussed in Section 3.7, Environmental Justice, and total population and housing are discussed in Section 3.16, Population and Housing. All of the Project alternatives are located entirely within Imperial County, and this is where the majority of expenditures associated with the SCH Project are expected to occur. Thus, the study area is Imperial County and, more specifically, the communities within the immediate vicinity of the southern Salton Sea in Imperial County, including the cities of Westmorland, Calipatria, and Brawley, and the unincorporated communities of Niland and Salton City.

Table 3.19-1 summarizes the socioeconomic impacts of each of the six Project alternatives compared to both the existing conditions and the No Action Alternative.

<b>Table 3.19-1 Summary of Impacts on Socioeconomics</b>								
Impact	Basis of Comparison	Project Alternative						Mitigation Measures
		1	2	3	4	5	6	
Impact SOC-1: Project construction and operations would cause an increase in local employment.	Existing Condition	B	B	B	B	B	B	None required
	No Action	B	B	B	B	B	B	None required
Impact SOC-2: Project construction and operations would result in an increase in tax revenue and local business revenue due to worker income and spending and materials purchases.	Existing Condition	B	B	B	B	B	B	None required
	No Action	B	B	B	B	B	B	None required
Impact SOC-3: Project operation would increase opportunities for passive recreational activity and research at the SCH ponds.	Existing Condition	B	B	B	B	B	B	None required
	No Action	B	B	B	B	B	B	None required
Impact SOC-4: Pond creation would preclude the reclamation of exposed playa for agricultural use.	Existing Condition	L	O	L	O	L	L	None required
	No Action	L	O	L	O	L	L	None required
Impact SOC-5: The SCH Project would result in the temporary loss of agricultural revenue due to construction and maintenance activities in the water pipeline right-of-way.	Existing Condition	L	O	O	L	O	O	None required
	No Action	L	O	O	L	O	O	None required
Impact SOC-6: Pipeline construction would require the temporary disruption of agricultural drains and canals.	Existing Condition	L	O	O	L	O	O	None required
	No Action	L	O	O	L	O	O	None required
Impact SOC-7: The SCH Project would restore a portion of lost habitat for some birds that are attracted to agricultural fields.	Existing Condition	L	L	L	L	L	L	None required
	No Action	L	L	L	L	L	L	None required

**Table 3.19-1 Summary of Impacts on Socioeconomics**

Note:

O = No Impact

L = Less than Significant Impact

S = Significant Impact, but Mitigable to Less than Significant

U = Significant Unavoidable Impact

B = Beneficial Impact

### **3.19.1 Regulatory Requirements**

#### **3.19.1.1 National Environmental Policy Act and California Environmental Quality Act**

Under the National Environmental Policy Act (NEPA), economic and social effects are not intended by themselves to require the preparation of an Environmental Impact Statement (EIS), but an EIS must include a discussion of a project's economic and social effects when these effects are related to effects on the natural or physical environments (40 Code of Federal Regulations [CFR] section 1508.14). Similarly, under the California Environmental Quality Act (CEQA) Guidelines, economic or social information may be included in an Environmental Impact Report (EIR), or may be presented in whatever form the agency desires. Economic or social effects of a project are not to be treated as significant effects on the environment, and those that are not related to physical impacts are not required to be evaluated in an EIR, although these effects may be taken into account when determining the significance of physical changes caused by a project (CEQA Guidelines, section 15131).

#### **3.19.1.2 Commodity Specific Food Safety Guidelines for the Production and Harvest of Lettuce and Leafy Greens**

The Commodity Specific Food Safety Guidelines for the Production and Harvest of Lettuce and Leafy Greens were established on August 4, 2010 and outline the food safety practices that the California Leafy Green Products Handler Marketing Agreement (LGMA) members are required to implement. The LGMA operates with oversight from the California Department of Food and Agriculture as a mechanism for verifying that farmers follow food safety practices for lettuce, spinach, and other leafy green vegetables, such as arugula, chard, escarole, cabbage, endive, kale, and spring mix. Most, if not all, of the agricultural distributors in the Project vicinity are members of the LGMA. The food safety guidelines focus on minimizing microbial food safety hazards by providing suggested actions to reduce, control, or eliminate microbial contamination of lettuce/leafy greens in the field. Animals of significant risk for contaminating crops are wild pigs, deer, cattle, sheep, and goats because their feces are identifiable and are known carriers of pathogens. Birds are not explicitly covered under the guidelines, although they also may carry pathogens. Typically, if any feces (including bird feces) are found in a field, that area is flagged off, deemed contaminated, and remedial actions are taken, which may include eliminating the affected portion of the crop (personal communication, M. Villaneva 2010).

#### **3.19.1.3 Imperial County General Plan**

The Imperial County General Plan (County of Imperial 2008) includes several goals and objectives that support diversified economic development in the county while preserving agricultural activity.

### **3.19.2 Affected Environment**

The Salton Sea serves two important functions for the economy of Imperial County. First, it is a recreational resource that attracts visitors from other areas of Southern California and the greater United States. It therefore generates tourist-based income and employment for the surrounding communities. Second, it serves as the repository for stormwater and agricultural runoff from Imperial Valley, and thus

represents an essential infrastructure for the local economy (California Department of Water Resources [DWR] and California Department of Fish and Game [DFG] 2007).

The data presented in the following subsections are based upon the most recent estimates from the California Employment Development Department (EDD) and the U.S. Bureau of Economic Analysis (USBEA).

### 3.19.2.1 Employment

Total population in Imperial County grew approximately 17 percent between 2001 and 2008. As shown in Table 3.19-2, which presents the distribution of employment by industry in the county and the percent of change in employment between 2001 and 2008, job growth in Imperial County matched the rate of population growth in the same time period. However, the distribution of jobs within the sectors shifted, with more new jobs being created in manufacturing and service-oriented sectors. The sectors with the greatest number of jobs remained services, state and local government, and wholesale and retail trade. All sectors experienced growth between 2001 and 2008, with the exception of farming, which declined by about 40 percent. Although arts, entertainment, and recreation and accommodation and food services together accounted for only 6 percent of total employment in the county, both of these sectors grew at a greater rate than total employment in the county during the same time period, with arts, entertainment, and recreation experiencing the greatest increase (77 percent) of any sector (USBEA 2010).

Table 3.19-2 Employment by Industry in Imperial County			
Industry	2001	2008	Percent Change
Farm	5,487	3,317	-39.5
Utilities	275	440	60.0
Construction	2,172	2,231	2.7
Manufacturing	1,836	2,678	45.9
Trade (wholesale & retail)	9,786	11,515	17.7
Transportation and warehousing	2,437	2,443	0.2
Arts, entertainment, and recreation	226	401	77.4
Accommodation and food services	3,018	3,754	24.4
Other services	13,140	17,897	36.2
Federal government (civilian and military)	2,224	2,777	24.9
State and local government	13,349	15,304	14.6
Total Number of Jobs	60,515	70,817	17.0
Source: USBEA 2010			

According to the Imperial County General Plan Land Use Element and studies conducted by the Imperial Valley Association of Governments (IVAG), the decline in employment in the farming sector may be explained by a shift in the local economy, which is becoming more diversified and less reliant on the

seasonal cycles of agriculture. However, while jobs in the farming industry appear to have been decreasing, it is estimated that total employment in this industry is supplemented by as many as 15,000 workers from Mexico annually (Imperial County 2008, IVAG 2006). Major employers in the vicinity of the SCH Project include two state prisons (Centinela State Prison and Calipatria Prison); Pioneer Memorial Hospital and Spreckels Sugar Company, both in Brawley; and Zinn Packing Company in Calipatria (EDD 2010a).

### **3.19.2.2 Unemployment**

The Imperial County unemployment rate in August 2010 was 29.2 percent, the highest of any county in California. The annual average unemployment rate in Imperial County in 2009 was 28.2 percent. This was more than double the unemployment rate in the state of California (11.4 percent) at the time. Unemployment rates in the cities nearest the SCH Project sites – Calipatria, Brawley, and Westmorland – were greater than both the county and state rates (29.8, 30.9, and 39.3 percent, respectively). Unemployment rates in the larger cities within the county – El Centro and Calexico – were 26.8 and 31.2, respectively. Unemployment rates in the county remained consistently at approximately 15 percent between 2000 and 2003 and began to rise in 2004, with the greatest change in unemployment in one year between 2008 and 2009 (22.4 percent to 28.2 percent) (EDD 2010b).

### **3.19.2.3 Recreation-Related Revenue**

The travel industry is a major component of California's economy and a primary industry for many local communities. In 2004, every \$100 of travel spending generated \$32.13 of earnings, \$2.33 of local tax revenue, and \$3.97 of state tax revenue. Tax receipts collected by counties and municipalities, as levied on applicable travel-related purchases, include local sales taxes and transient occupancy taxes (DWR 2005).

Within Imperial County, the Salton Sea is a major travel destination, recreational resource, and source of revenue for the county as a whole and for the nearby communities. In 2005, DWR conducted a recreation and economics opportunities assessment that focused on recreation and tourism spending in the vicinity of the Salton Sea (DWR 2005). In 2003, the total direct travel spending in Imperial County was \$250.4 million. The local tax receipts generated by travel spending in Imperial County totaled \$4.3 million. The assessment did not estimate the number of visitors to local and county recreational areas associated with the Salton Sea; however, it was estimated that during the 2003/2004 fiscal year, the Salton Sea State Recreational Area received approximately 227,500 visitors and that an estimated 45,000 vehicles entered the Sonny Bono Salton Sea National Wildlife Refuge. On average, visitors to the Salton Sea State Recreational Area spent \$92.50 per visitor per day.

### **3.19.2.4 Agriculture-Related Revenue**

Imperial County produces more than 100 different commodities, including livestock, apiary products, and a wide variety of field and other crops. Table 3.19-3 summarizes the acreage devoted to the general categories of crops grown in the Imperial Valley in 2000, 2005, and 2009. The acreage dedicated to each type of crop, as well as the total acreage in cultivation, may change over time in response to market conditions and other factors.

**Table 3.19-3 Change in Cropping Patterns, 2000-2009**

Commodity	2000 (acres)	2005 (acres)	2009 (acres)
Field crops	389,628	351,866	353,128
Vegetable and melon crops	103,550	100,052	114,099
Fruit and nut crops	5,959	6,341	6,745
Seed and nursery products	81,564	55,711	62,237
Total acres	580,701	513,970	536,209
Source: County of Imperial Agricultural Commissioner 2001, 2006, and 2010			

The total gross agricultural production 2009 value in Imperial County was \$1,452,970,000, an overall reduction of 13.75 percent over the preceding year. This reduction was due primarily to decreased prices. Field crops and seed and nursery crops had losses of over 35 percent, while livestock decreased by about 14 percent, and apiary products and vegetable and melon crops remained relatively stable. Fruit and nut crops increased by nearly 28 percent (County of Imperial Agricultural Commissioner 2011). As shown in Table 3.19-4, the relative economic importance of the current top ten agricultural commodities may change from year to year, although cattle are consistently ranked number one.

**Table 3.19-4 Top Ten Commodities in Imperial County in 2009 and Rankings over Time**

Commodity	2009 Value (dollars)	2009 Ranking	2005 Ranking	2000 Ranking
Cattle	287,001,000	1	1	1
Head lettuce	146,697,000	2	5	3
Leaf lettuce	115,916,000	3	3	7
Wheat	97,862,000	4	20	13
Alfalfa	85,344,000	5	2	2
Broccoli	79,466,000	6	7	8
Carrots	54,643,000	7	4	4
Onions	45,278,000	8	8	10
Sugar beets	41,764,000	9	9	5
Spring mix	37,193,000	10	21	34
Source: County of Imperial Agricultural Commissioner 2001, 2006, and 2010				

3.19.3 Impacts and Mitigation Measures

3.19.3.1 Impact Analysis Methodology

Each of the Project alternatives was compared to the existing environmental setting described above and the No Action Alternative to determine the comparative magnitude of impacts on socioeconomic resources within the study area.

It was assumed that the majority of construction workers would come from the local area, with the exception of heavy equipment operators. Heavy equipment would likely be brought in from the San Diego area, and some specialized equipment, such as clamshell derricks, tractor scraper units, and excavators, could come from either the San Francisco Bay Area or the Sacramento area. The socioeconomic impacts associated with the temporary relocation of this heavy equipment and an estimated total of 18 to 60 heavy equipment operators would be negligible within such large population centers and would not result in any physical effects on the environment; thus, impacts in those areas are not discussed further.

3.19.3.2 Thresholds of Significance

*Significance Criteria*

Socioeconomic impacts would be significant if the Project alternatives would:

- Substantially decrease local employment;
- Substantially decrease revenue for local businesses;
- Substantially decrease revenue for agricultural enterprises; or
- Substantially decrease public agency revenue.

*Application of Significance Criteria*

The following summarizes the overall methodology used in applying the significance criteria to the Project alternatives:

- **Substantially decrease local employment** – An alternative would substantially decrease local employment if the Project resulted in the closure of local businesses or industry.
- **Substantially decrease revenue for local businesses** – An alternative would substantially decrease revenue for local businesses if it deterred visitors and potential customers from visiting the Salton Sea in the vicinity of the SCH Project;
- **Substantially decrease revenue for agricultural enterprises** – An alternative would substantially decrease revenue for agricultural enterprises if it substantially reduced the land available for future agricultural reclamation as compared to the total land area available or converted existing agricultural land to non-agricultural uses without appropriate compensation to the farmer. An alternative would also substantially decrease revenue for agricultural enterprises if the Project resulted in a substantial increase in the types of birds in the vicinity of the ponds that were likely to damage crops through depredation or exposure to fecal matter, potentially requiring the destruction of the affected area.
- **Substantially decrease public agency revenue** – An alternative would substantially decrease public agency revenue if it resulted in a decrease in tax revenue as a result of decreased revenue for local businesses (e.g., less sales tax revenue), decreased local employment (e.g., less income tax revenue), or reduced recreation-based income (e.g., entrance fees, fishing licenses) in the study area.

**3.19.3.3 No Action Alternative**

In 2012 when Project construction is expected to begin, socioeconomic conditions would likely be substantially similar to those described under the Affected Environment above, although some normal fluctuations would be expected.

Declining inflows in future years from various factors will result in collapse of the Salton Sea ecosystem due to increasing salinity and other water quality issues, such as temperature, eutrophication and related anoxia, and algal productivity. The loss of fish populations from the open water area will significantly reduce, and possibly eliminate, use of the Salton Sea by fish-eating birds, such as pelicans, double-crested cormorants, and black skimmers by the early 2020s. Some of these birds could use the areas where the rivers, creeks, and drains enter the Salton Sea if fish continue to persist in these locations. In addition, the relative abundance of bird species that forage on invertebrates likely will change over time with increases in salinity and resultant changes in the invertebrate community.

The reduction of bird populations would reduce the potential for crop depredation and the exposure of lettuce and other leafy green vegetables to fecal matter, which would benefit agriculture by reducing the potential for loss of crops.

Until 2018, surface water elevations in the Salton Sea would decline due to factors unrelated to the QSA from the existing elevation of about -228 feet mean sea level (msl) to -235 feet msl. After 2018, when mitigation water is no longer conveyed to the Salton Sea, inflows and the surface water elevation would decline rapidly. By 2078, the elevation would be about -260 feet msl. The surface water area would decline from the existing 230,000 acres to 213,000 acres in 2018 and 140,000 acres by 2078. The amount of exposed playa that would result over time is as follows (DWR and DFG 2007):

Up to 2020	4,000 acres
2020 – 2030	36,000 acres
2030 – 2078	48,000 acres

As the Salton Sea recedes, there is a potential that farmers could reclaim the exposed land for agricultural uses, but the likelihood of this occurring is speculative. The land near the river deltas would be composed primarily of sand, silt, and fine particles and would be suitable for agriculture, but it would require reclamation. Reclamation would involve leaching the salts out of the soils through the application of water, and the ground would need to be 6 to 7 feet higher than any standing or running water in the area. Groundwater intrusion could also be an issue, requiring a good drainage system to prevent the upward movement of salty water. Water also would need to be made available by the Imperial Irrigation District for irrigation (personal communication, K. Bali 2010). Thus, the likelihood of this land being reclaimed in the future is possible, but is considered speculative at this time.

Reduced water quality and fisheries production would likely result in a decrease in recreational activities, which would over time decrease or eliminate revenue for local businesses that cater to recreational resources such as marinas, bait shops, and other outfitters. Similarly, a reduction in recreational activity would correspond with reduced recreation-based public agency revenue, both in the total amount of entrance fees collected at state facilities and in the amount of fishing and boating licenses sold in the vicinity of the Salton Sea.

3.19.3.4 Alternative 1 – New River, Gravity Diversion + Cascading Ponds

**Impact SOC-1: Project construction and operations would cause an increase in local employment (beneficial impact).** Project construction would generate a temporary increase in the demand for construction workers and truck drivers. As shown in Table 3.19-2, a pool of nearly 4,700 construction and transportation workers is available in Imperial County to help meet the needs of the Project, which include 2 managers, 3 foremen, 50 truck drivers, 6 laborers, and 36 heavy equipment operators, for a total of 97 workers over the approximately two-year construction period (as noted above the heavy equipment operators likely would come from San Diego, San Francisco, or Sacramento). Since the majority of the population in Imperial County is concentrated in the cities near the United States-Mexican border (see Section 3.16, Population and Housing), more construction workers could be drawn from these areas to work on the Project rather than the communities in the immediate vicinity. Employment impacts from Project construction would be beneficial compared to both the current environmental setting and the No Action Alternative.

Minimal staff would be required during operation and maintenance; this requirement would be a minor, although beneficial, impact compared to both the current environmental setting and the No Action Alternative.

**Impact SOC-2: Project construction and operations would result in an increase in tax revenue and local business revenue due to worker income and spending and materials purchases (beneficial impact).** As discussed in Section 3.16, Population and Housing, the majority of the population in Imperial County is concentrated in the cities near the United States-Mexican border, and the populations of cities and communities in the vicinity of Project are much smaller. Materials purchases therefore are more likely to occur in these cities than communities nearer the construction site. Since heavy equipment operators would likely come from San Diego, Sacramento, and San Francisco, some temporary housing would be required in the nearby local communities, most likely Westmorland or Calipatria, or at nearby campgrounds. This would generate an increase in local business revenue and associated lodging taxes. Other construction worker spending in the vicinity of the Project would be minimal (e.g., meals, personal necessities, etc.) but beneficial compared to both the current environmental setting and the No Action Alternative.

Certain construction materials, such as rip-rap, also would likely be purchased in Imperial County, which also would have a beneficial economic impact.

As noted above, minimal staff would be required during operation and maintenance of the SCH Project, which would result in a small increase in tax revenue and local business revenue. This would be a minor, although beneficial impact in comparison to both the existing setting and the No Action Alternative, as would the purchase of materials required for operations and maintenance.

**Impact SOC-3: Project operation would increase opportunities for passive recreational activity and research at the SCH ponds (beneficial impact).** Under this alternative, the newly restored habitat would provide opportunities for passive recreational activities, such as day use, hiking, bird watching, photography, and non-motorized watercraft use, subject to seasonal restrictions to protect nesting birds. Angling may also be allowed if fish populations become well established. Waterfowl hunting may be allowed as well, to the extent that such species use the ponds.

Bird watching and wildlife-related photography historically have been some of the most popular activities at the Salton Sea. The 2005 DWR study of recreation at the Salton Sea estimated that on average visitors to the Salton Sea Recreation Area spent \$92.50 per person per day, excluding travel expenses in 2003. The capacity of facilities for bird-watching and photography at the National Wildlife Refuge lands along



the Salton Sea was 6,000 visitors per year in 2004 (DWR 2005). As discussed above, every \$100 of travel spending generates approximately \$32.13 of earnings, \$2.33 of local tax revenue, and \$3.97 of state tax revenue. Although the expected number of visitors to the restoration area is unknown, if the Project increased the capacity for these recreational activities, additional passive recreational users could be attracted to the project vicinity and visitor spending in the vicinity of the SCH Project would likewise increase. Impacts would therefore be beneficial compared to the current environmental setting because it is likely that more visitors would be attracted than currently use the area, which is in a remote agricultural setting with limited opportunities for passive recreational activities. The Project also would have a long-term beneficial impact when compared to the No Action Alternative because it would be one of the few remaining areas at the Salton Sea where birds and fish were present.

**Impact SOC-4: Pond creation would preclude the reclamation of exposed playa for agricultural use (less-than-significant impact).** Once the SCH ponds were created, the underlying playa would no longer be available for reclamation as agricultural land. The amount of exposed playa that is expected to be present over time is shown in Table 3.19-5, along with the percentage that would be removed through implementation of Alternative 1, which would restore approximately 3,130 acres of habitat.

**Table 3.19-5 Percentage of Exposed Playa Covered as a Result of Alternative 1 Implementation**

Time Period	Exposed Playa (without SCH)	Percentage Lost with Alternative 1
Up to 2020	4,000 acres	78
2020 – 2030	36,000 acres	9
2030 – 2078	48,000	6
Source: DWR and DFG 2007, Table H7-2		

As the Salton Sea recedes over time, implementation of Alternative 1 would comprise a smaller percentage of the exposed playa. In 2020, when approximately 4,000 acres of playa would be exposed, Alternative 1 ponds would comprise 78 percent of this area. By 2030, the Alternative 1 ponds would represent only 9 percent of the exposed area, and by 2078, this would be further reduced to 6 percent. Given the small percentage of the land area that would be occupied by the SCH Project and the uncertainty regarding whether any of the exposed land would be reclaimed for agricultural purposes, this impact is considered less than significant compared to both the current environmental setting and the No Action Alternative.

**Impact SOC-5: The SCH Project would result in the temporary loss of agricultural revenue due to construction and maintenance activities in the water pipeline right-of-way (less-than-significant impact).** Construction would require a 220-foot right-of-way during pipeline installation, and a right-of-way also would be needed to during operations in order to allow access for maintenance, although the corridor may be smaller. This impact would occur regardless of whether the pipeline followed an existing roadway or crossed agricultural fields, although it would be somewhat less if the roads were followed. The land right-of-way would be obtained from a willing owner who would be compensated for the temporary loss of the use of this land. Once the pipeline was installed, crops could be grown in the right-of-way. There could be temporary disruptions in agricultural uses if the pipeline needed to be maintained, but this would be factored into the compensation provided to the landowner. Impacts would be less than significant because landowners would be adequately compensated for the temporary loss of revenue from their land.

**Impact SOC-6: Pipeline construction would require the temporary disruption of agricultural drains and canals (less-than-significant impact).** As shown on Figure 3-11-6, a number of agricultural drains are present in the vicinity of the area where the pipeline would be located, and a number of canals are present along roads. Installation of the pipeline would require crossing a number of these drains regardless of whether the route followed existing roads or crossed agricultural fields, and construction along roads would likely affect canals. Each drain would be cut and a bypass would be put in place to ensure that the water did not back up into agricultural fields; similarly, bypasses would be established for canals. The drains and canals would be restored to their original condition and reconnected once pipeline installation was completed. There is a potential for disruption of drains and canals if excavation of the pipeline is required for maintenance, and the same procedures would be followed as during construction. As noted above, land would be acquired from willing owners who would be adequately compensated for any loss of their land during construction and operations/maintenance. This impact would therefore be less than significant.

**Impact SOC-7: The SCH Project would restore a portion of lost habitat for some birds that are attracted to agricultural fields (less-than-significant impact).** As discussed in Section 3.4, Biological Resources, the salinity of the Salton Sea is projected to continue to increase and the water surface elevation will continue to decrease. This trend will accelerate after 2017, when IID stops providing mitigation water to the Sea. The decline and ultimate loss of open water fish populations, and particularly tilapia, is expected to reduce and possibly eliminate use of the Salton Sea by fish-eating birds such as pelicans, double-crested cormorants, and black skimmers by the early 2020s. Some of these birds could use areas where the rivers, creeks, and drains enter the Sea if fish continue to persist in these locations, as well as the sedimentation/distribution basins. The SCH Project would compensate for a portion of the lost habitat, but it would not create new habitat in a place where it does not currently exist, nor would it create more habitat than is present at the southern end of the Salton Sea at present. The precise number of birds that would use the habitat is not known at this point, but overall, the number of birds that are present in the general vicinity will decrease over time regardless of whether the Project is implemented.

The SCH Project is being designed to provide habitat for fish-eating birds that are dependent on the Salton Sea: American white pelican, black skimmer, Caspian tern, double-crested cormorant, and gull-billed tern. These birds would not forage in the nearby fields. The ponds would attract other bird species, as well, however. The bird species that currently use the nearby agricultural fields are described below, followed by a discussion of whether these species are expected to use the SCH ponds.

Snow geese, Ross' geese and American wigeon forage in the agricultural fields, particularly lettuce and alfalfa (personal communication, A. Kalin 2011). They may roost or loaf in the proposed SCH ponds, but this would not be different than the existing condition. Based on the expected high salinity of the ponds and the lack of emergent vegetation, these species are not expected to forage in the proposed SCH ponds, nor would the ponds provide nesting habitat for these species, which otherwise could result in a larger population.

Blackbirds, starlings, cowbirds, grackles, and horned larks feed in newly planted fields on germinating seeds of various crops planted (personal communication, A. Kalin 2011). These species are not expected to use the SCH ponds.

White-faced ibis, cattle egrets, and curlews feed on insects in farmers' bermudagrass and alfalfa fields while the fields are being irrigated and for a few days after the irrigation. These types of birds are actually a benefit to the farmers in that they consume the majority of crickets, cutworms, and armyworms pushed to the surface by the irrigation in the portions of each field irrigated during daylight hours (personal communication, A. Kalin 2011). These species are expected to do some foraging at the SCH ponds, but continue to do most of their foraging in the agricultural fields.

1 Gulls, particularly the ring-billed gull and California gull, feed in farmers' fields during irrigation as well  
2 as during the lettuce harvest (personal communication, A. Kalin 2011). Gulls are expected to roost at the  
3 SCH ponds, and because fish would be present, they would also be likely to forage there. Because the  
4 ponds would provide a food source, they may keep gulls away from the fields. The SCH Project would  
5 not be designed to encourage the presence of gulls.

6 Sandhill crane numbers are increasing around the southern edge of the Salton Sea and may feed on grains  
7 and seeds. It is possible that they may roost in the proposed SCH ponds (but not at the sedimentation  
8 basins, which would be too deep), but they are not expected to forage at the ponds. The ponds would not  
9 provide nesting habitat for the cranes and are not expected to increase overall populations compared to  
10 existing conditions.

11 There is a potential for some birds that use the SCH ponds to forage in the nearby fields and expose crops  
12 to bird feces. Of the species that are attracted to the agricultural fields, however, only gulls are anticipated  
13 to be potentially high users of the SCH ponds. It is possible that after the collapse of the Salton Sea, SCH  
14 ponds could locally increase the density of gulls, at least temporarily. However, as noted above, overall  
15 available habitat will be declining, thereby resulting in an overall decline of bird populations. Further, the  
16 species that most frequently use the agricultural fields are attracted to the irrigated fields, not to the Sea  
17 itself. The SCH ponds are being created to partially replace the Salton Sea habitat, so the type of habitat  
18 created by the SCH ponds is not the type of habitat that is most attractive to these species. Impacts would  
19 be less than significant when compared to both the existing environmental conditions and the No Action  
20 Alternative.

### 21 3.19.3.5 Alternative 2 – New River, Pumped Diversion

22 **Impact SOC-1: Project construction and operations would cause an increase in local employment**  
23 **(beneficial impact).** The discussion under Alternative 1 is applicable to this alternative, although 77  
24 workers would be required (of which approximately 27 would relocate from the outside area); thus, the  
25 economic benefit would be slightly less than under Alternative 1.

26 **Impact SOC-2: Project construction and operations would result in an increase in tax revenue and**  
27 **local business revenue due to worker income and spending and materials purchases (beneficial**  
28 **impact).** The discussion under Alternative 1 is applicable to this alternative, although only 77 workers  
29 would be required; thus, the economic benefit would be slightly less than under Alternative 1.

30 **Impact SOC-3: Project operation would increase opportunities for passive recreational activity and**  
31 **research due to increased bird nesting and foraging in the Salton Sea (beneficial impact).** The  
32 discussion under Alternative 1 is applicable to this alternative.

33 **Impact SOC-4: Pond creation would preclude the reclamation of exposed playa for agricultural use**  
34 **(less-than-significant impact).** The discussion under Alternative 1 is generally applicable to this  
35 alternative, although less habitat would be restored (2,670 acres as opposed to 3,130 acres). Therefore, the  
36 amount of exposed playa that would be converted to habitat would be less, as shown in Table 3.9-6.

**Table 3.19-6 Percentage of Exposed Playa Covered as a Result of Alternative 2 Implementation**

Time Period	Exposed Playa (without SCH)	Percentage Lost with Alternative 2
Up to 2020	4,000 acres	67
2020 – 2030	36,000 acres	7
2030 – 2078	48,000 acres	6
Source: DWR and DFG 2007, Table H7-2		

**Impact SOC-7: The SCH Project would restore a portion of lost habitat for some birds that are attracted to agricultural fields (less-than-significant impact).** The discussion under Alternative 1 is applicable to this alternative.

### 3.19.3.6 Alternative 3 – New River, Pumped Diversion + Cascading Ponds

**Impact SOC-1: Project construction and operations would cause an increase in local employment (beneficial impact).** The discussion under Alternative 1 is applicable to this alternative, although 115 workers would be required (of which approximately 44 would relocate from the outside area); thus, the economic benefit would be slightly greater than under Alternative 1.

**Impact SOC-2: Project construction and operations would result in an increase in tax revenue and local business revenue due to worker income and spending and materials purchases (beneficial impact).** The discussion under Alternative 1 is applicable to this alternative, although 115 workers would be required; thus, the economic benefit would be slightly greater than under Alternative 1.

**Impact SOC-3: Project operation would increase opportunities for passive recreational activity and research at the SCH ponds (beneficial impact).** The discussion under Alternative 1 is applicable to this alternative.

**Impact SOC-4: Pond creation would preclude the reclamation of exposed playa for agricultural use (less-than-significant impact).** The discussion under Alternative 1 is generally applicable to this alternative, although more habitat would be restored (3,770 acres as opposed to 3,130) (refer to Table 3.19-7 for the percentage of exposed playa that would be covered with water.

**Table 3.19-7 Percentage of Exposed Playa Covered as a Result of Alternative 3 Implementation**

Time Period	Exposed Playa (without SCH)	Percentage Lost with Alternative 4
Up to 2020	4,000 acres	94
2020 – 2030	36,000 acres	10
2030 – 2078	48,000 acres	8
Source: DWR and DFG 2007, Table H7-2		

**Impact SOC-7: The SCH Project would restore a portion of lost habitat for some birds that are attracted to agricultural fields (less-than-significant impact).** The discussion under Alternative 1 is applicable to this alternative.

### 3.19.3.7 Alternative 4 – New River, Gravity Diversion + Cascading Pond

**Impact SOC-1: Project construction and operations would cause an increase in local employment (beneficial impact).** The discussion under Alternative 1 is applicable to this alternative, although only 47 workers would be required (of which approximately 17 would relocate from the outside area); thus, the economic benefit would be slightly less than under Alternative 1.

**Impact SOC-2: Project construction and operations would result in an increase in tax revenue and local business revenue due to worker income and spending and materials purchases (beneficial impact).** The discussion under Alternative 1 is applicable to this alternative, although only 47 workers would be required; thus, the economic benefit would be slightly less than under Alternative 1.

**Impact SOC-3: Project operation would increase opportunities for passive recreational activity and research at the SCH ponds (beneficial impact).** The discussion under Alternative 1 is applicable to this alternative.

**Impact SOC-4: Pond creation would preclude the reclamation of exposed playa for agricultural use (less-than-significant impact).** The discussion under Alternative 1 is generally applicable to this alternative, although a greater amount of habitat would be restored (2,290 acres as opposed to 3,130). Therefore, the amount of exposed playa that would be converted to habitat is greater, as shown in Table 3.9-8, but the significance of the impact would not change because the percentage is ultimately small, and the potential for the land to be reclaimed is speculative at this time.

**Table 3.19-8 Percentage of Exposed Playa Covered as a Result of Alternative 4 Implementation**

Time Period	Exposed Playa (without SCH)	Percentage Lost with Alternative 4
Up to 2020	4,000 acres	57
2020 – 2030	36,000 acres	6
2030 – 2078	48,000 acres	5

Source: DWR and DFG 2007, Table H7-2

**Impact SOC-5: The SCH Project would result in the temporary loss of agricultural revenue due to construction and maintenance activities in the water pipeline right-of-way (less-than-significant impact).** The discussion under Alternative 1 is applicable to this alternative.

**Impact SOC-6: Pipeline construction would require the temporary disruption of agricultural drains and canals (less-than-significant impact).** The discussion under Alternative 1 is applicable to this alternative.

**Impact SOC-7: The SCH Project would restore a portion of lost habitat for some birds that are attracted to agricultural fields (less-than-significant impact).** The discussion under Alternative 1 is applicable to this alternative.

### 3.19.3.8 Alternative 5 – Alamo River, Pumped Diversion

**Impact SOC-1: Project construction and operations would cause an increase in local employment (beneficial impact).** The discussion under Alternative 1 is applicable to this alternative, although only approximately 43 construction workers would be required (of which approximately 15 are expected to relocate from the outside area); thus, the economic benefit would be less than under Alternative 1.

**Impact SOC-2: Project construction and operations would result in an increase in tax revenue and local business revenue due to worker income and spending and materials purchases (beneficial impact).** The discussion under Alternative 1 is applicable to this alternative, although only 43 workers would be required. Thus, the economic benefit would be less than under Alternative 1.

**Impact SOC-3: Project operation would increase opportunities for passive recreational activity and research at the SCH ponds (beneficial impact).** The discussion under Alternative 1 is applicable to this alternative, but less habitat would be restored.

**Impact SOC-4: Pond creation would preclude the reclamation of exposed playa for agricultural use (less-than-significant impact).** The discussion under Alternative 1 is generally applicable to this alternative, although less habitat would be restored (2,080 acres as opposed to 3,130 acres). Therefore, the amount of exposed playa that would be converted to habitat is less, as shown in Table 3.9-9.

**Table 3.19-9 Percentage of Exposed Playa Covered as a Result of Alternative 5 Implementation**

Time Period	Exposed Playa (without SCH)	Percentage Lost with Alternative 5
Up to 2020	4,000 acres	52
2020 – 2030	36,000 acres	6
2030 – 2078	48,000 acres	4

Source: DWR and DFG 2007, Table H7-2

**Impact SOC-7: The SCH Project would restore a portion of lost habitat for some birds that are attracted to agricultural fields (less-than-significant impact).** The discussion under Alternative 1 is applicable to this alternative.

### 3.19.3.9 Alternative 6 – Alamo River, Pumped Diversion + Cascading Ponds

**Impact SOC-1: Project construction and operations would cause an increase in local employment (beneficial impact).** The discussion under Alternative 1 is applicable to this alternative; although only approximately 58 construction workers would be required (of which approximately 24 would relocate from the outside area) during the two-year construction period; thus, the economic benefit would be less than under Alternative 1.

**Impact SOC-2: Project construction and operations would result in an increase in tax revenue and local business revenue due to worker income and spending and materials purchases (beneficial impact).** The discussion under Alternative 1 is applicable to this alternative, although only 58 construction workers would be required. Thus, the economic benefit would be less than under Alternative 1.

**Impact SOC-3: Project operation would increase opportunities for passive recreational activity and research at the SCH ponds (beneficial impact).** The discussion under Alternative 1 is applicable to this alternative.

**Impact SOC-4: Pond creation would preclude the reclamation of exposed playa for agricultural use (less-than-significant impact).** The discussion under Alternative 1 is generally applicable to this alternative, although less habitat would be restored (2,940 acres as opposed to 3,130 acres). Therefore, the amount of exposed playa that would be converted to habitat is less, as shown in Table 3.9-10.

**Table 3.19-10 Percentage of Exposed Playa Covered as a Result of Alternative 6 Implementation**

Time Period	Exposed Playa (without SCH)	Percentage Lost with Alternative 6
Up to 2020	4,000 acres	73
2020 – 2030	36,000 acres	8
2030 – 2078	48,000 acres	6
Source: DWR and DFG 2007, Table H7-2		

**Impact SOC-7: The SCH Project would restore a portion of lost habitat for some birds that are attracted to agricultural fields (less-than-significant impact).** The discussion under Alternative 1 is applicable to this alternative.

#### 3.19.4 References

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**SECTION 3.0**  
**AFFECTED ENVIRONMENT, IMPACTS, AND MITIGATION MEASURES**

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1 U.S. Bureau of Economic Analysis (USBEA). 2010. Local Area Personal Income, Regional Economic  
2 Accounts. Website (<http://www.bea.gov/regional/reis/>), accessed on September 20.

3 **3.19.5 Personal Communications**

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5 November 22, 2010.

6 Kalin, Al. Imperial County Farm Bureau. Memo sent to Neil Nikirk, CH2M HILL, regarding depredation  
7 from birds feeding in Imperial Valley fields. January 10, 2011.

8 Villaneva, Mike. Technical Director, California Leafy Green Products Handler Marketing Agreement,  
9 personal communication with Sarah Bumby on November 11, 2010.

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